

ATTACHMENT 4

Relationship to Other Ongoing Activities

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Below is a description of other activities and information related to the regulation of source material. These activities are interrelated with the activities of the Interagency Jurisdictional Working Group (JWG). Where applicable, the impact of the interrelated activity, as compared to the recommended approach discussed in the Commission paper (i.e., decrease NRC authority to uranium or thorium that are purposely extracted/concentrated), is discussed.

1. Proposed Rule Changes to 10 CFR 40.51, "Transfer of source or byproduct material"

In the SRM to SECY-99-259, the Commission directed the staff to develop and issue a proposed rule to require licensees to request NRC approval prior to transferring source material to persons who were exempt under § 40.13(a) (i.e., receiving formerly-licensed uranium and thorium at concentrations under 0.05 percent by weight of source material). Additionally, the proposed rule would add "disposal" to the list of exempted activities under § 40.13(a). The staff issued the proposed rule for comment on August 28, 2002 and the comment period ended on November 12, 2002. The staff is evaluating the comments and developing the final rule and expects it to be ready for Commission review during the summer of 2003. The recommended approach could eventually remove the need for this rule because it is expected that, under implementation of the recommendation, 10 CFR 40.13(a) would likely be deleted from the regulations. As a result, the staff would likely use any regulations related to solid material release for further transfers.

2. Proposed Rulemaking Related to Distribution of Source Material and to Changes to 10 CFR 40.22, "Small quantities of source material"

In the SRM to SECY-99-259, the Commission directed the staff to develop a rulemaking plan to improve the control of distribution of source material to exempt persons and to general licensees, and the incorporation of the resolution of PRM-40-27 in order to make Part 40 more risk-informed. The staff provided a rulemaking plan as part of SECY-01-0072 to the Commission on April 25, 2001. The staff's recommendation in the rulemaking plan calls for new requirements to require reporting from distributors of source material to exempt persons and to general licensees, so that NRC can better understand how much and what hazards this distribution presents to the public and the environment. Additionally, the rulemaking plan suggests that 10 CFR 40.22 be modified to remove, to some extent, the current exemptions from 10 CFR Parts 19, 20, and 21 or change the limits for general licensees, resulting in more specific source material licensees. Although the recommended approach might remove some exemptions (e.g., rare earth), it is expected that it will not result in any significant changes to the need or purpose of the current rulemaking.

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3. Control of Disposition of Solid Material

The staff is conducting a rulemaking on its approach for control of disposition of solid materials. Doses from uranium or thorium at concentrations below 0.05 percent by weight concentration could exceed those included for consideration in the June 30, 1999, Issues Paper on release of solid materials at licensed facilities (64 FR 35090). Under the recommendations in this SECY paper on the JWG activities, uranium and thorium occurring or apt to occur as an incidental component of the material would not be subject to NRC jurisdiction and would then be considered NORM. Therefore, this material would not be impacted by NRC's current approach for control of disposition of solid materials or by any future proposed regulations related to the control of disposition of solid materials, which apply, or will apply, to licensed material. EPA and the States would then have the legal authority to regulate the uranium and thorium as NORM. By adopting the recommendations in this SECY paper to limit NRC authority to uranium and thorium that are purposely used or extracted, the exemption in § 40.13(a) may no longer be needed, and, thus, potential conflict with the approach to the control of disposition solid materials will likely be eliminated.

4. Systematic Assessment of Exemptions

SECY-99-259 was, in part, an outgrowth of the Systematic Assessment of Exemptions (NUREG-1717, "Systematic Radiological Assessment of Exemptions for Source and Byproduct Materials"), in which § 40.13(a) was identified as being related to questions of jurisdiction. Preliminary conclusions of the staff with respect to the source material exemptions included that options beyond rulemaking should be evaluated with respect to the exemption in § 40.13(a) and that some of these options could also impact the exemptions in §§ 40.13(b) and 40.13(c)(1)(vi). Staff recommendations concerning the other exemptions from licensing were provided to the Commission in SECY-02-0196, "Recommendations Stemming from the Systematic Assessment of Exemptions from Licensing in 10 CFR Parts 30 and 40; and a Rulemaking Plan for Risk-informing 10 CFR Parts 30, 31, and 32," November 1, 2002. That paper did not address the exemptions in §§ 40.13(a), 40.13(b), and 40.13(c)(1)(vi), because of the concurrent work of the JWG. If the Commission does not pursue the recommendation to decrease NRC's authority for uranium and thorium, the staff would need to further evaluate the results of NUREG-1717, other information with respect to these three exemptions, and regulatory options for addressing health and safety concerns.

5. IAEA Draft Proposed Specification of Radionuclide Content Not Requiring Regulation for Purposes of Radiation Protection (DS-161)

The IAEA draft safety guide uses different approaches to set limits for "artificial radionuclides" (i.e., produced by reactor or accelerator) versus naturally occurring radionuclides. The IAEA draft safety guide could also be considered for the control of disposition of solid materials for purposes of trade. The recommended approach is similar to the IAEA proposal to the extent that it treats diffuse NORM differently from "artificial radionuclides"; however, the recommended approach would lead to NRC continuing to

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regulate the purposeful use of uranium and thorium to the same standards used in the regulation of byproduct material. Additionally, the recommended approach would rely on agencies, other than NRC, to set limits for uranium and thorium, in NORM/TENORM, such that one single standard may not apply to diffuse uranium and thorium.

6. EPA/States NORM/TENORM Regulations

The EPA is developing guidance and education programs on an industry-by-industry basis for TENORM materials. Implementation of EPA guidance generally considers the impact of source material. EPA implementation would be consistent with its current programs for NORM. Under the recommended approach, the EPA could more broadly regulate uranium or thorium, which would no longer be considered AEA material. Therefore, the recommended approach would provide greater consistency with the regulation of NORM/TENORM.

7. National Materials Program Working Group Report

The National Materials Program Working Group Report (submitted to the Commission by SECY-01-0112, June 22, 2001) recommended that the Commission adopt a cooperative, consensus option for a national program and obtain legislative authority to regulate discrete sources of Naturally Occurring or Accelerator-Produced Radioactive Material. This authority would not include regulation of diffuse naturally-occurring radioactive material.

The recommended approach takes a similar approach in that when uranium or thorium are purposefully concentrated/extracted, the concentrated/extracted material would be regulated as source material under the AEA by NRC and the Agreement States, while diffuse uranium and thorium (not purposefully concentrated/extracted) would be considered NORM and not subject to NRC regulation under the AEA. Ores that are processed at uranium mills would also be regulated as source material under the AEA regardless of the uranium or thorium concentration of the ore.

8. SECY-01-0224, "Expansion of NRC Statutory Authority Over Medical Use of Naturally Occurring and Accelerator-Produced Radioactive Material (NARM)"

SECY-01-0224 focuses primarily on accelerator-produced material and proposes a legislative change to have NRC regulate "any material that has been made radioactive by use of a particle accelerator and is extracted, or converted after extraction, for use in commercial or research activities" The Commission approved this approach in an SRM dated May 21, 2002. Subsequently, the Commission directed the staff to expand the proposal in SECY-01-0224 to include all discrete sources of naturally occurring radioactive material, other than source material, that are extracted or converted after extraction for use in commercial, medical, or research activities.

The recommended approach is consistent with the proposal in SECY-01-0224 and related SRM because both proposals limit NRC jurisdiction to radioactive materials that are

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purposely extracted and used and do not include regulation of the diffuse radioactive material by the NRC.

9. National Academy of Sciences Report, "Evaluation of Guidelines for Exposures to TENORM" and EPA's Response to Congress (1999)

The National Academy of Science (NAS) was tasked with determining whether the differences in the guidelines for TENORM developed by the EPA and other organizations are based upon scientific and technical information or on policy decisions related to risk management. If the guidelines developed by the EPA and other organizations differ in their scientific and technical bases, the NAS was asked to examine the relative merits of the underlying assumptions for these guidelines and also to determine whether there is relevant and appropriate scientific information that has not been used in the development of the guidelines. The NAS determined that the differences are due essentially to differences in policy judgments for risk management, rather than differences in the application of scientific and technical information. The NAS, in this document, acknowledges that inconsistencies exist across agencies in how they regulate similar material. In comparing guidelines, NAS pointed out that it is important to understand the reasons why such a consistency should not be expected, one of which is that each agency/organization has different statutory and judicial mandates.

The recommended approach will allow greater consistency within NRC's regulations, as well as remove the current legal impediments for the States and EPA to regulate uranium and thorium. The States and EPA will then be able to regulate NORM as a whole, and not just the radium and radon components of the material.

10. IAEA Technical Document on NORM, "The Extent of Environmental Contamination by Naturally Occurring Radioactive Material (NORM) and Technological Options for Mitigation."

IAEA is preparing a technical document on NORM, "The Extent of Environmental Contamination by Naturally Occurring Radioactive Material (NORM) and Technological Options for Mitigation." The document should be available sometime in 2003. The document is intended to be a brief compilation of information on the occurrence of NORM/TENORM in major industry sectors, including means of reducing the radiation levels or volumes of wastes. The purpose of the document is to advise IAEA member nations that they may have TENORM problems and what some countries are doing about such problems.